REMARKS

Claims 1-51 are in the application. Reconsideration and reexamination are respectfully requested.

1. Requirement for Restriction Under 35 U.S.C. §121

A Requirement for Restriction Under 35 U.S.C. §121 has been made, and was duly responded to.

Claims 52-59, withdrawn from consideration as being directed to an **un**-elected invention, remain canceled.

2. Objections to the Claims

Claims 15 and 6 are objected to for informalities.

A typographical error is corrected in claim 15.

Claim 6 is amended to depend upon claim 5.

A typographical error is also corrected in claim 1.

3. Rejections Under 35 U.S.C. §§102 and 103

Claims 1-5, 7, 13-17 and 21 were rejected under 35 U.S.C. §102(e) as being anticipated by the reference art patent no. 6,331,858 to Fisher ["Fisher"].

Claims 22-25, 28-34, 36-40, 43-49 and 51 were rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher in view of the reference art patent no. 6,414,676 to Miodonski ["Miodonski"].

Claim 35 was rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher and Miodonski further in view of the reference art patent no. 6,122,391 to Ringland, et al. ["Ringland, et al."].

Claims 6 and 8-11 were rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher in view of the reference art patent no. 6,329,994 to Gever, et al. ["Gever,

et al."].

Claims 18-20 were rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher in view of the reference art patent no. 6,553,418 to Izumitani ["Izumitani"].

Claims 26, 27, 41, 42 and 50 were rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher in view of the reference art patent no. 6,122,391 to Ringland, et al. ["Ringland, et al."].

3.1 Rejection of Claim 1

Applicant claims a network-based rendering method where (1) a scene is described at a client (first computer), (2) rendering instructions and scene information are transmitted to the server (second computer), and (3) an image is rendered using 3D models and texture maps that need not reside on the client (the first computer). Finally, (4) the rendered image is returned as a 2D image over the network for (5) display at the client (the first computer). Applicant claims no specific user interface design in Claim 1 or elsewhere.

Fisher describes a method that is quite the opposite: a user interface for a display terminal incorporating an image generation system, all residing on the *client* (the first computer). Texture data, and in some cases, 3D objects, are obtained from the server (the second computer).

Fisher explains that "surface texture data for a selected finish is automatically downloaded from a remote source and mapped onto the object in the 3D (perspective view) scene" area of the Fisher-specified Graphics User Interface ["GUI"]. Applicant claims an image rendering method wherein such surface texture data is **not** downloaded from the second computer for use in mapping an image on the first computer, but rather resides on and is utilized on the second computer during the 3D image rendering process. [To wit: "combining in the second computer

the information (1)-(3) and the (4) derived 3D background scene model to assemble in consideration of (5) object-based rules as to how the selected 3D object exists within the 3D scene, to produce (6) a 3D perspective view of the selected object properly scaled, located and oriented relative to the 3D scene...." (claim 1)]

Fisher describes that her GUI (on the first computer) contains a "3D display region which shows a scene incorporating a number of objects, such as items of furniture". She further describes that this image on the first computer contains mapped textures obtained from the second computer. Applicant claims a rendering method wherein the final image is rendered on the second computer, using textures obtained from the second computer, but selected on the first computer. [See language quoted from claim 1 above.] The perspective view (final) image is then sent from the second computer to the first, for viewing. [I.e., "displaying at the first computer this (6) perspective view...." Claim 1)] Applicant's method is very different from the display terminal of Fisher.

Fisher does **not** teach a method for "producing the 3D scene at a first computer", rather she describes a user interface, and method of operating a display terminal. In any event, Applicant claims a method for producing the perspective view (final scene image) at the second computer. [See language of claim 1 quoted above.]

Contrary to the Examiner's assertion at page 3 of the Office Action, Figure 3 of Fisher does **not** show a computerized method for generating and rendering over a digital communications network a perspective view of a three dimensional (3D) object that can exist in the real world, located within, surrounding, or in front of, a 3D scene object in a 3D scene. Figure 3 is rather nothing more than a screen shot of a graphical user interface design. Furthermore, this figure shows nothing about using

associated dimensional information of the particular 3D scene.

Contrary to the Examiner's assertion at page 3 of the Office Action, Figure 1 of Fisher does **not** show a method of producing the 3D scene at a first computer using a digital communications network, but rather is simply an illustration of a personal computer connected to an internet server over a telephone line via an internet service provider (ISP).

Likewise, Figure 5 of Fisher does **not** show anything about using 3D models or their precursors to render an image, but rather shows the specifics of the layout of Fisher's GUI.

It is **not** true that "Fisher teaches transmitting *from the first computer* upon the digital communications network the information (col. 5 lines 42-52)." Actually, Fisher describes just the opposite: transmitting *from the second computer* upon the digital communications network the information (col. 5 lines 42-52). Fisher states in this section: "Subsequently the user may access the on-line catalog of a furniture retailer and may select objects, such as a chair, which are then downloaded [*from the second computer*] and inserted into the 3-D scene using the same mechanism as that adopted for downloading textures in the preceding examples."

In Applicant's claimed method, "Any input involving selection or purchase requires transmitting from a **first** computer." In Fisher's method, any such input oppositely requires transmitting from a **second** computer.

It is not true that "Fisher teaches receiving at another, or second computer, using the digital communications network, the information (col. 1, lines 50-55)." Fisher describes the **opposite**: the information must be received at the first computer, as that is where Fisher generates images.

It is not true that "Fisher teaches deriving on the *second computer* a 3-D background model of the represented and selected 3-D background scene (col. 5, lines 15-25)." In fact, in this

section, Fisher describes that everything is taking place on the *first computer*. This is again **opposite** of what Applicant claims.

It is not true that "Fisher teaches combining, using the *second computer*, information that derive the 3-D background scene model to assemble the data in consideration (col. 5, lines 15-25)." Fisher describes the **opposite**, that such processes take place on the *first computer*.

It is not true that "Fisher teaches object-based rules as to how the selected 3-D object exists within the 3-D scene for producing a 3-D perspective view of a properly scaled and selected object (col.5, lines 15-25)." Fisher is only describing the Viscape plug-in, and her or its GUI design and control buttons.

It is not true that "Fisher teaches transmitting from the second computer, using the digital communications network, the perspective view (col. 5, lines 63-67)." This is indeed what Applicant claims. However, Fisher describes only that individual scene objects and their texture maps, but **not** the final scene image, are transmitted from the *second computer*. The difference is great: scene objects and texture maps are but data used in the making of an image; the (final scene) image itself is the **result.** If the (final scene) image is photorealistic then an immense amount of computer calculations separate the image data from the image. In accordance with Applicant's (claimed) invention, these calculations are better done at the typically more powerful, second, server computer.

It is not true that "Fisher teaches receiving at the first computer, using the digital communications network, this perspective view (fig. 1 #54)." This is indeed what Applicant claims. However, Fisher shows that the perspective view is generated at the first computer, not received there.

It is not true that "Fisher teaches a perspective view of a 3-D mode (sic. should be "model"), and a selected object with

which is associated a scene, permits generation of a 3-D perspective view of the selected suitably real world 3-D scene (fig. 3, col.5, lines 14-25)". (After this assertion something seems garbled.)

It is not true that "Fisher teaches image selection made interactively over a digital network transpiring entirely in 2D supports the generation of a 3-D perspective view showing a 3-D object located and oriented within a 3-D scene (fig. 3, col.5, lines 14-25)." This is indeed what Applicant claims. However, in this section of her patent, Fisher describes object selection for scene generation on the first computer. Such selection is made entirely on the first computer; it does **not** involve image selection made interactively over a digital network as is claimed by Applicant. Once selected, Fisher's method may involve the downloading of an object or texture from a second computer. However, the selection itself does **not** involve "a selection made interactively over a digital network", as is claimed by Applicant.

Fisher does indeed teach about how her GUI can be used to select a suitably real world object from among several, but this is incidental to Applicant's Claim 1, which is not about a method for selecting objects, but for rending images on a server for viewing on a client computer. Fisher's method relies upon a commercially-available browser plug-in for generating the image on the first computer, hence her reason for generating the perspective image on the client computer. The method of image generation in Applicant's claim 1 does not involve the use of any client-based hardware or software for final scene image generation, and in fact, Applicant provides **and positively claims** that such image generation takes place on the server.

3.2 Rejection of Claim 2

Applicant's Claim 2 is dependent upon Applicant's claim 1,

which, as demonstrated above, is neither taught nor suggested by Fisher.

3.3 Rejection of Claim 3

Applicant's Claim 2 is likewise dependent upon Applicant's claim 1, which, as demonstrated above, is neither taught nor suggested by Fisher.

The fact that 3D objects output to 2D displays as 2D objects is of no consequence.

3.4 Rejection of Claim 4

Applicant's Claim 4 is likewise dependent upon Applicant's claim 1, which, as demonstrated above, is neither taught nor suggested by Fisher.

Fisher makes no mention of a method for rotating objects, only placing them. Further, Fisher describes a method of generating images on the first computer, while Applicant claims a method for generating them on the second computer.

3.5 Rejection of Claim 5

Applicant's Claim 5 is likewise ultimately dependent upon Applicant's claim 1, which, as demonstrated above, is neither taught nor suggested by Fisher.

Fisher describes a method of generating images on the first computer, using in some cases, models transferred from the second computer. Applicant claims the opposite: a method for generating images on the second computer, in some cases incorporating models transferred from the first computer.

3.6 Rejection of Claim 7

Applicant's Claim 7 is likewise ultimately dependent upon Applicant's claim 1, which, as demonstrated above, is neither taught nor suggested by Fisher.

As just stated, Fisher describes a method of generating images on the first computer, using in some cases, models transferred from the second computer. Applicant claims the opposite: a method for generating images on the second computer, in some cases incorporating models resident on the second computer.

3.7 Rejection of Claim 13

Applicant claims in his claim 13 a method for generating a scene image at a (second) server computer, based (at least in part) on information transmitted from a first computer over a network. Fisher describes and shows a method for a fundamentally opposite situation: generating an image on a first computer which may incorporate objects or textures from a second computer. These methods are fundamentally different.

[The difference is not unimportant (although "importance" is not a criteria of patentability, and Applicant's claimed system and method need not be "importantly" different from Fisher and all other of the art of reference in order to be patentable. As explained in Applicant's specification, Applicant' system and method is preferably used to render **photo-realistic images**. This requires a lot of computer processing power, and always will. The photo-realistic image rendering is better, and more cost effectively, performed on a powerful central sever computer that performs this task time-shared for many client computers than it is so performed on these client computers themselves.]

It is not true that "Fisher teaches generating at a client computer [over] a digital communications network containing one or more 2D images representing an associated particular suitably real world 3D scene in which a 3D scene is a place where a suitably real world 3-D object can exist (fig. 5; col. 5; lines 50-62)." [The immediately following statements seem garbled.]

Applicant claims a method for generating, at the client

computer, a preview image, the specification for which are then transmitted to the server computer, where the final perspective view image is generated, and then returned to the first computer. (It is presumably **not** necessary to quote claim 13 to the Examiner within this argument; the claim may readily be referenced, and should be clear.) Fisher does **not** describe rendering or image generation on a second computer.

It is not true that "Fisher teaches placement and rotational information regarding where and what position attitude the selected 3-D object represented by the selected iconic image is to be placed within the selected 3-D scene" (fig. 5; col. 5; lines 15-23). This is because Fisher's methods do not involve server-based image generation.

It is not true that "Fisher teaches transmitting from the first computer, using the digital communications network, information for the previous steps (fig. 5; col. 5; lines 40-62)". This is indeed what Applicant claims. However, since Fisher describes that all image generation occurs on the first computer, Fisher's method does **not** involve the transmission of information from the first computer, for use by a second computer, in generating an image on the second computer.

It is not true that "Fisher teaches receiving at another or second computer information data from the previous steps with photographically or virtually derived 3D model corresponding to the represented and selected 3-D scene (fig. 5m; col. 5; lines 28-32)." Fisher neither teaches nor suggests methods for receiving any such information at a second computer as is necessary for generating images on the second computer -- and as is claimed by Applicant. This is because Fisher provides that all images are generated on the first computer!

3.8 Rejection of Claims 14, 15, 16, 17 and 21

Applicant's claims 14, 15, 16, 17 and 21 are ultimately

dependent upon Applicant's claim 13, which, as demonstrated above, is neither taught nor suggested by Fisher.

3.9 Rejection of Claims 22-25, 28-34, 36-40, 43-49 and 51

Claims 22-25, 28-34, 36-40, 43-49 and 51 were rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher in view of the reference of Miodonski.

Miodonski concerns data structures as may produce three-dimensional (3D) images. The relationship of this reference to Fisher and, more importantly, to Applicant's claimed invention, is uncertain.

The Examiner is perhaps drawn to the Miodonski reference simply because of the occurrence of the term "3D" in Applicant's designated claims. The fact that 2D can be produced of 3D objects, including real-world objects, is not novel. Applicant's claimed method go to **where**, and **how**, these images are produced, and for what purpose(s).

Claims 22 specifies "an interactive method of **promoting and selling** real-world objects" (which admittedly has much to do with image rendering and production over a network). However, just as with application of the primary reference of Fisher to previous claims commencing at claim 1, application of the reference art of Fisher combined with that of Miodonski does nothing to teach or suggest, inter alia, the claimed **locations** where Applicant's quite specific models and images arise, and are used. (It is deemed unnecessary to quote from claim 22, which is replete with quite specific references to **where** things arise, and happen.)

Claims 23-25 and 28-34 and 36 are ultimately dependent upon claim 22, and are patentable for the same reasons.

Claim 37 again specifies an "interactive method of promoting and selling real-world objects" conducted between a server (computer) and a client (computer) upon a digital communications network in a manner that is neither taught nor suggested by any

of the art of reference taken in any combination. In particular, operations are done at certain locations, and communicated in certain directions, in a certain sequence.

Claims 38-40, 43-49 and 51 are ultimately dependent upon claim 37, and are patentable for the reasons stated above: namely, the prior art of Fisher and Miodonski does **neither** teaches nor suggests Applicant's claimed performance of operations at certain locations and communications in certain directions, all in a certain sequence.

Merely reciting the clauses of Applicant's claims and stating "Fisher teaches" does **not** make this true -- see the arguments regarding claim 1, et seq. above.

3.10 Rejection of Claim 35

Claim 35 was rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher and Miodonski further in view of the reference art of Ringland, et al.

Ringland, et al. deals with the selection of (image) patterns and colors by spectrophotometric analysis.

The Examiner's point is taken insofar as the Examiner wishes to cite Ringland. et al. as suggesting that various patterns, colors, etc. of paints, stains, swatches, or any "real physical sample of something in the generated and displayed 3D image of the room with furnishings" (claim 32) might reasonably be imaged.

However, Ringland, et al. does nothing to overcome the deficiencies of Fisher and Miodonski to teach or suggest **each** of Applicant's quite specific claiming (see, e.g., claim 22) of (1) where, (2) how, (3) in what sequence and (4) to what effect images are produced.

3.11 Rejection of Claims 6 and 8-11

Claims 6 and 8-11 were rejected under 35 U.S.C. §103 as being unpatentable over the reference art of Fisher in view of

the reference art of Gever, et al.

Gever, et al. show the programming of animated objects including stick figures.

The Examiner apparently misconstrues the word "model". A "model" is not a "doll", or "stick figure". A "model" is any of a data, and/or mathematical, and/or outline to which an image may be constructed. It is a sort of "backbone" to a later-constructed image.

The reference art of Gever, et al. may suggest some of the attidinal and rotational capability that Applicant applies, and claims (within selected ones of claims 8-11) to apply, to his images. But the reference art of Gever, et al, does noting, as explained in section 7.1 above, to overcome the deficiencies of Fisher, and Fisher in combination with any other of the art of reference, to teach of suggest Applicant's quite specifically claimed "computerized method of generating and rendering **over a digital communications network** a perspective view of a three-dimensional object...." (claim 1).

The Examiner is in general rather more concerned with image formation -- which is admittedly highly advanced in the computer arts -- than Applicant's purposes, and claimed methods, for **efficiently and effectively** rendering views of a "three-dimensional object that can exist in the real world located within, surrounding, or in front of, a three-dimensional scene that can also exist in the real world" "**over a digital communications network**" (claim 1). Applicant's images are not, by and large, revolutionary: it is how (and where, and why, and in what sequence, etc.) these images are rendered in a distributed, networked, environment that is novel, and patentable.

3.12 Rejection of Claims 18-20

Claims 18-20 were rejected under 35 U.S.C. §103 as

being unpatentable over the reference art of Fisher in view of Izumitani.

Izumitani describes the computerized fitting of eyeglasses.

Insofar as such a system teaches or suggests that "a prospective purchaser of the real-world eyeglasses may be rendered a perspective view of the eyeglasses properly located and oriented upon, and fitted to, the purchaser's own human head" (claim 18), the Examiner's point is taken.

However, Izumitani does nothing to overcome the deficiencies of Fisher (and Fisher in combination with any and all other of the art of reference) to teach or suggest of Applicant's quite specific claiming of **where** and **when** transpires "producing...; transmitting...; receiving...; deriving...; and combining...; and then transmitting...; and receiving...; and displaying" as is set forth in claim 1 so that "image selection made interactively **over a digital network** transpiring entirely in 2D supports the generation of a 3D perspective view showing a 3D object located and oriented within a 3D scene".

The Examiner is urged to regard the verbs of Applicant's claim 1. Some of these verbs -- producing, deriving, combining and displaying -- sound in image generation. But others -- transmitting, receiving; and then transmitting and receiving -- do **not**. Exactly where, and how, and when Applicant proceeds to formation of an "image... **interactively over a digital network**" (claim 1) (boldface added) is fully as important to Applicant's invention as are the mechanics of image generation.

3.13 Rejection of Claims 26, 27, 41, 42 and 50

Claims 26, 27, 41, 42 and 50 were rejected under 35 U.S.C. §103 over the reference art of Fisher in view of the reference art of Ringland, et al.

As explained in section 3.10 above, Ringland, et al. does nothing to overcome the deficiencies of Fisher to teach or

suggest Applicant's claimed production of an image upon a digital communications network.

4. Summary

The present amendment and remarks have overcome and discussed each of the bases for the rejections presented in the Office Action. No new subject matter has been introduced by the present amendment.

In consideration of the preceding amendment and accompanying remarks, the present application is deemed in condition for allowance. The timely action of the Examiner to that end is earnestly solicited.

Applicant's undersigned attorney is at the Examiner's disposal should the Examiner wish to discuss any matter which might expedite prosecution of this case.

Sincerely yours,

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